



GENERAL NOTES:

BOLLARDS

- ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE. SIZE AS INDICATED - VARIANCE NOT TO EXCEED 1.5%.
- MATERIALS TO HAVE FLAMMABILITY TESTING TO AS/ISO 9239 AND/OR FIRE HAZARD RATING TO AS/NZS 1530, AND TO HAVE DEMONSTRATED CHEMICAL RESISTANCE. POROSITY TO BE A MAXIMUM OF 15% OF CROSS SECTION.
- SECTIONS TO BE FORMED FROM A SINGLE CONTINUOUS EXTRUDED PIECE.
- MATERIAL FINISH TO BE RECYCLED PLASTIC, COLOUR 'BLACK', UV STABILISED, FINISH TO BE SMOOTH AND FREE OF ANY MAJOR VOIDS OR VISIBLE DEFECTS.
- ACCEPTABLE BOLLARD VARIANTS INCLUDE: 150 DIAMETER WITH TAPERED TOP 100 X 200 RECTANGULAR "BROLGA" BOLLARD SUPPLIED BY "REPLAS" (AS SPECIFIED IN MRC STYLE MANUAL) OR APPROVED EQUIVALENTS MEETING THE MATERIAL AND DESIGN REQUIREMENTS SPECIFIED IN THIS DRAWING
- BOLLARDS TO BE PLUMB AND SPACED AT 1700 CENTRES MEASURED FROM CENTRE OF BOLLARDS
- WHERE POSITIONED ALONG PROPERTY BOUNDARY ALIGNMENTS, OUTER FACE OF BOLLARDS TO BE ALIGNED TO INSIDE OF PROPERTY BOUNDARIES AS SHOWN
- FOOTINGS ARE TO BE A MINIMUM 1000 CLEAR OF WATER, SEWER AND OTHER UNDERGROUND SERVICE LINES.
- BOLLARDS SHALL BE OFFSET A MINIMUM 1000 FROM LONGITUDINAL PATH ALIGNMENTS TO PROVIDE A SAFETY CLEARANCE IN ACCORDANCE WITH AUSTROADS PART 6A; WHERE BOLLARD ALIGNMENTS CROSS/TRANSECT PATH ALIGNMENTS, BOLLARDS EITHER SIDE OF PATH SHALL ACHIEVE A MINIMUM OFFSET OF 500 AND INCLUDE DELINEATORS AS NOTED THIS SHEET.
- WHERE SPACE PERMITS BOLLARDS ARE TO BE INSTALLED WITH A MINIMUM 2500 OFFSET FROM ADJACENT KERBS, TREES, STRUCTURES AND OTHER HARD EDGES/ELEMENTS TO PROVIDE FOR DECK MOWER ACCESS

DELINEATORS

- DELINEATORS SHALL BE INSTALLED TO EACH SIDE OF BOLLARD (ORIENTATED FACING IN A LINE PARALLEL TO THE ROAD) WHERE INSTALLED WITHIN ROAD RESERVES (TREE PROTECTORS FOR EXAMPLE) OR ALONG ROADS AND WITHIN 1500 OF THE MARKED OUTER CARRIAGE LINE, OR EDGE OF PAVEMENT WHERE AN UPSTAND KERB IS NOT PRESENT
- WHERE REQUIRED, DELINEATORS SHALL BE INSTALLED AT A MAXIMUM OF 6 BOLLARD SPACINGS (APPROX. 8.5M SPACINGS FOR BOLLARDS, 12M SPACINGS FOR VEHICLE BARRIERS)
- WHERE BOLLARDS ARE INSTALLED TO CARPARK PERIMETERS, DELINEATORS (RED) SHALL BE INSTALLED FACING DIRECTION OF CARPARK BAYS
- DELINEATORS ARE TO BE TYPE 'A' (CORNER CUBE) MATERIALS WHICH CONFORM WITH THE REQUIREMENTS OF AS/NZS 1906.2, SUNK INTO PRE-ROUTED RECESSES, DEPTH OF RECESS TO ENSURE EDGES OF DELINEATOR DO NOT PROJECT BEYOND CURVED FACE OF BOLLARD. FIX TO BOLLARDS WITH GRADE 316 STAINLESS STEEL BLIND RIVET AND CONTACT ADHESIVE AS PER MANUFACTURERS SPECIFICATIONS.
- DELINEATORS SHALL BE INSTALLED RED DELINEATORS TO BOLLARD FACE FACING ONCOMING TRAFFIC, WHITE DELINEATORS FACING LEAVING TRAFFIC.
- WHERE LINE OF BOLLARDS TRANSECT PATHS, DELINEATORS SHALL BE INSTALLED TO EITHER SIDE OF NEAREST BOLLARDS ADJACENT PATHS; RED DELINEATOR TO LEFT HAND SIDE AND WHITE TO RIGHT HAND SIDE (FACING DIRECTION OF TRAVEL)

- WHERE BOLLARDS (REMOVABLE) ARE INSTALLED WITHIN PATHS, 3 ROWS OF 50MM WIDE CLASS 1 REFLECTIVE TAPE (WHITE / RED / WHITE) SHALL BE INSTALLED TO THE TOP OF THE BOLLARD RED TAPE AT A DISTANCE OF 625 ABOVE FGL AND PARALLEL WITH THE GROUND LINE AND WHITE STRIPS SPACED 25 ABOVE AND BELOW. TAPE TO COMPLY WITH AS/NZS 1906.1:2007 AND BE APPLIED AS PER MANUFACTURERS SPECIFICATIONS.

REMOVABLE BOLLARDS

- WHERE REQUIRED INSTALL REMOVABLE BOLLARDS CENTRALLY TO PATHS / ACCESSWAYS IN SAME ALIGNMENT AS BOLLARD ROW
- INSTALL BOLLARDS WITHIN HD GALVANISED, SUB-SURFACE MOUNTED, HINGED, LOCKABLE BOLLARD SLEEVE
- REMOVE BOTTOM (100MM APPROX.) PORTION OF BOLLARD AS REQUIRED TO SUIT DEPTH OF SLEEVE.
- ALTERNATIVELY, SHOP BUILT HD GALVANISED SLEEVES MAY BE USED UPON APPROVAL. REFER INDICATIVE INSTALLATION DETAILS.

C	02.2024	NOTES AMENDED	APPVD
B	05.2020	ROUND BOLLARD REMOVED, NOTES ADDED	APPVD
A		ORIGINAL ISSUE	APPVD
DATE		DESCRIPTION	APPVD
AMENDMENTS AND REVISIONS			
\ROADS\STREET\A3-0000.DWG			

SURVEY	DRAWN	SIGNED	DATE
	R.Mohorko	R.Mohorko	25/2/15
SURVEY FILE No	DESIGNED	SIGNED	DATE
	GT	GT	25/2/15
LEVEL DATUM	CHECKED	SIGNED	DATE
AHD	RW	R WILLIS	9/3/15
MERIDIAN	MANAGER PARKS AND ENVIRONMENT		
MGA 55	ORIGINAL SIGNED BY	DATE	
	PETER OWEN	17.3.15	
	PETER OWEN	DATE	

DIRECTOR COMMUNITY AND CLIENT SERVICES	
ORIGINAL SIGNED BY GERARD CARLYON	
DATE 18.3.15	

STANDARD
BOLLARD
REMOVABLE

SHEET 1 OF 1	
WORKS JOB No.	
DRAWING No.	AMEND.
A3-00918	C